

**WHAT IS CLAIMED IS:**

1. A system for detecting the presence of urease comprising:  
a first composition separated from a second composition for  
5 sequential contact with a sample, said first composition comprising urea  
in powdered form, said urea being capable of being converted into  
ammonia when contacted with urease, said second composition  
comprising an indicator, said indicator being configured to indicate the  
presence of ammonia.
- 10 2. A system as defined in claim 1, wherein said first composition  
further comprises an anti-caking agent.
3. A system as defined in claim 1, wherein said second  
composition comprises a gel.
- 15 4. A system as defined in claim 1, wherein said second  
composition further comprises agar and a pH adjuster, said second  
composition having a pH of less than about 6.0.
5. A system as defined in claim 1, wherein said indicator  
comprises phenol red.
6. A system as defined in claim 1, wherein said urea has a  
20 particle size of less than about 0.1 mm.
7. A system as defined in claim 1, wherein said first composition  
is contained in a first container and said second composition is contained  
in a second container.
8. A system as defined in claim 1, wherein said first composition  
25 and said second composition are positioned, and spaced apart, in the  
same container.
9. A system for detecting the presence of urease comprising:  
a container including a first well spaced apart from a second well;  
a first composition contained in said first well, said first  
30 composition comprising urea, said urea being capable of being converted  
into ammonia when contacted with urease;

a second composition contained in said second well, said second composition comprising an indicator, said indicator being configured to indicate the presence of ammonia.

10. A system as defined in claim 9, wherein said first composition  
5 comprises a powder and wherein said urea has a mean particle size of less than about 0.1 mm.

11. A system as defined in claim 10, wherein said second composition further comprises agar and a pH adjuster.

12. A system as defined in claim 9, wherein said indicator  
10 comprises phenol red.

13. A system as defined in claim 9, wherein said indicator comprises a pH indicator that changes color when the pH of said second composition is increased above a certain level.

14. A system as defined in claim 9, further comprising a top  
15 covering said first well and said second well of said container, said top comprising a film, said film being water impermeable over said first well.

15. A system for detecting the presence of urease comprising:  
a container including a well;  
a composition contained in said well, said composition  
20 comprising a powdered urea and a dry indicator, said urea being capable of being converted into ammonia when contacted with urease and said indicator being configured to indicate the presence of ammonia.

16. A system as defined in claim 15, wherein said urea comprises a powder having a mean particle size of less than 0.1 mm.

25 17. A system as defined in claim 15, wherein said composition further comprises an anti-caking agent.

18. A system as defined in claim 15, wherein said indicator comprises a pH indicator that changes color when the pH of said composition is increased above a certain level.